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ABSTRACT

This compilation of research in agricultural education contains abstracts of studies completed during 1970-71 in the American Vocational Association Pacific Region. The abstracts are arranged alphabetically by author and include the purpose, methodology, and findings. Studies are available for loan from university libraries or departments. In addition, a listing of research studies in progress during 1970-71 and guidelines for preparing an abstract are provided. (SB)

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SUMMARIES OF STUDIES IN AGRICULTURAL EDUCATION

Pacific Region, 1970-1971

an annotated bibliography of studies in agricultural education

Department of Applied Behavioral Sciences
University of California
Davis, California

December, 1971

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SUMMARIES OF STUDIES IN AGRICULTURAL EDUCATION

PACIFIC REGION

1970-71

Compiled by
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Issued at

Department of Applied Behavioral Sciences
College of Agricultural and Environmental Sciences
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December 1971

INTRODUCTION

This compilation of research in agricultural education includes studies completed during 1970-71 in states of the Pacific Region.

All studies submitted by teacher educators are included in this report although some may not meet the criteria that were established for the selection of studies for the U. S. Office of Education publication, Summaries of Studies in Agricultural Education.

The compilation of abstracts of research in agricultural education is an activity of the Research Committee of the Agricultural Education Division of the American Vocational Association.

Some reports may be submitted after the booklet has gone to the printer. In such cases these should be included in the 1971-72 edition.

Elwood M. Juergenson
Pacific Region Representative
Research Committee
Agricultural Education Division
AVA

December 1971

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SUMMARIES OF STUDIES

ANDEREGG, RALPH HAROLD. Developing the Agriculture Cluster at Canby Union High School. Thesis, M. Ed. 1971, Oregon State University, 59 p. Kerr Library, Oregon State University, Corvallis.

Purpose. -- The major purpose of this study was to develop recommendations for the agriculture cluster at Canby Union High School in light of the following questions: (1) What should be the objectives of the agriculture cluster? (2) What policies of the agriculture cluster are needed? (3) What courses should be offered by the agriculture cluster? (4) What are the student performance objectives for the courses? (5) What facilities are needed by the agriculture cluster?

Method. -- Recommendations for the agriculture cluster were developed by the author in consultation with the agriculture staff at the State Department of Education and Oregon State University, vocational administrators, agriculture teachers, and the agriculture advisory council at Canby Union High School. The State Agriculture Cluster Guide was used extensively in these consultations.

Findings. -- Recommendations of the author on the basis of this study include:

1. Canby Union High School continue to support agricultural education by adopting the objectives and policies developed in this study.

2. The courses for the agriculture cluster recommended in this study be implemented by school year 1971-72.

3. Facilities for the agriculture cluster at Canby be developed along the lines recommended by the agriculture advisory council, with particular emphasis on land laboratory facilities in the areas of nursery-field crops, forestry, and livestock.

4. Additional staff be hired to serve added enrollment and to give more individualized instruction to students.

5. Time be given the agriculture staff to develop specific student performance objectives for each course in the agriculture cluster.

BAILEY, K. LaMOYNE. Teaching Plans For Agribusiness Orientation. Graduate Report, M.S. 1970, Utah State University, 64 pages. U.S.U. Library, Logan, Utah 84321.

Purpose. -- The purpose of this study was to set up 13 units to aid teachers of vocational agriculture to more effectively orient students into agribusiness.

Method. -- A review was made of literature and visual aids, and personnel in the field of agribusiness were interviewed to obtain factual information needed to set up teaching plans that included behavioral objectives and reference materials.

Findings. -- The teaching plans could be developed and fitted into the following breakdown:

The situation

Teacher Objectives

Student behavioral objectives

Motivation

Study guides or prcblem areas

References

Analysis

BENNETT, DAVID HARRISON. A Study of the Vocational Agriculture Department's Influence on Occupational Selection and Educational Experience of the 1962 Vocational Agriculture Graduates of Selected Idaho High Schools. Thesis, M.S., 1971, University of Idaho, 44 p., Library, University of Idaho, Moscow.

Purpose. -- (1) To determine the occupation or educational status of the vocational agricultural graduates as of December, 1962. (2) To determine the present occupational status of the 1962 vocational agriculture graduates. (3) To determine the highest level and nature of formal educational experiences of the 1962 vocational agriculture graduates. (4) To determine the present geographic location of the 1962 vocational agriculture graduates of selected Idaho high schools. (5) To determine the number of 1962 vocational agriculture students who were influenced by the high school vocational agriculture program in their occupational choice. (6) To determine the value of vocational agriculture training in the career progress of the 1962 vocational agriculture graduates. (7) To determine the number of 1962 vocational agriculture graduates who were influenced by the high school vocational agriculture program to continue their education.

Methods. -- The data were obtained by mail questionnaires from 102 1962 vocational agriculture graduates from twenty-four Idaho school districts. The following information was gathered: (1) occupational or educational status as of December, 1962, (2) present occupational status, (3) highest level and nature of formal educational experience, (4) present geographic location, (5) influence of vocational agriculture on present occupation, (6) student's responses to the benefits of vocational agriculture training in their career progress, (7) student's responses to the influence of vocational agriculture on their decision to continue their education.

Findings. -- This study reveals that by excluding those former vocational agriculture graduates enrolled in school or in the military service, a large number or 92.3 percent of those employed in December, 1962, were engaged in agricultural occupations. This evidence indicates that vocational agricultural training enables students to enter production and off-farm agriculture occupations upon graduation.

In 1971, the study shows that sixty or 58.8 percent of the same 1962 vocational agriculture graduates who were employed, not in school or in the military service, were in agricultural occupations. Half of these graduates were in production agriculture and the other half in agricultural related occupations.

This study indicates that vocational agriculture training continues to be an important part of the educational system in Idaho. This is evident by the number of graduates who enter agriculture occupations.

This study indicates that vocational agriculture training continues to be an important part of the educational system in Idaho. This is evident by the number of graduates who enter agriculture occupations.

This study showed that many vocational agriculture graduates entered vocations in agriculture related occupations. It is therefore evident that vocational agriculture curriculums must be revised to provide training for off-farm agricultural occupations along with training in production agriculture.

The type and quality of the educational program provided in high school will be reflected in the occupational skills and qualities of the people living in the communities. The fact that seventy-nine or 77.5 percent of the 102 respondents were living in Idaho supports this statement. Since forty-four or 43.1 percent of the group remained in the local communities in which they graduated from high school, it becomes obvious that the training provided in the respective communities and the state are a very important responsibility of educators.

BICKLE, LOWELL MADISON. A Follow-up Study of the 1950, 55, 60, 65, 67 Graduates of the College of Agriculture at Montana State University, Professional Paper, M.S., 1971, Montana State University, 225 p. Department of Agricultural Education, Montana State University, Bozeman.

Purpose. -- The purpose of the study was to collect and tabulate data which would aid in identifying and defining the employment, mobility and advanced education patterns and the value rankings of education received in the College of Agriculture.

Method. -- The population of 392 former students included in 1950, 55, 60, 65, 67 graduates of the College of Agriculture. A questionnaire was sent to each B.S. degree recipient seeking data regarding employment, mobility and advanced education patterns.

Findings. -- As the number of positions held increased, the percent of graduates who were Montana residents prior to attending college presently reside outside the state. Twenty-one percent of the graduates showed no residential mobility. Further, the graduates who remained in the state tended to cluster around the larger metropolitan communities.

Agricultural Education graduates had the highest mean salary for the first position held. Those graduates who pursued advanced studies, degree or non-degree, consistently received a higher salary. Technical and managerial jobs accounted for over 50 percent of all positions held by agricultural graduates. As the number of positions held increased, the percent of positions classified as managerial also increased. Pay was the major reason for termination of positions.

Many of the graduates who received advanced degrees also completed advanced non-degree studies. Sixty-four percent of the graduates had completed advanced degrees.

Education received by students has improved within the major areas from 1950 to 1957 as indicated by value ratings given by students.

BRITTON, ROBERT L. The Value of School Land Laboratories. Master's Report, 1970. Colorado State University. 144 p. Department of Vocational Education, Colorado State University, Fort Collins, Colorado.

Purpose. -- To determine the present extent of use and the value of school land laboratories in Colorado.

Method. -- Data were gathered from vocational agriculture teachers, high school principals, and local school board presidents who operated school land laboratories in 1969 in connection with their vocational agriculture programs, through responses to a questionnaire.

Findings. -- Of the vocational agriculture departments in Colorado, 48.4 percent operated a school land laboratory. The average size was 28.9 acres with 75 percent on the total number being less than 10 acres. Ninety-three and seven-tenths percent of the facilities were located within five miles of the high school and 62.4 percent were completely livestock oriented. A written policy statement had not been adopted by the school board in 84.4 percent of the cases.

The respondents agreed that a school land laboratory should be organized and operated under the guidance of the vocational agriculture teacher and the advisory council and that the facility should be educational rather than money-making in nature.

The major advantages of the facility were determined to be that it provides for demonstration teaching and serves as a place for students to learn new skills. The major disadvantages were that students may have to limit the size of the individual projects because of space limitations and that the facility places an extra burden on the vocational agriculture teacher.

It was agreed that a written policy statement should be adopted by the local school board that provides for financial accountability and safety and liability for students and instructors. There was a stronger need for this statement expressed by the principals and board presidents than by the vocational agriculture teachers.

It was indicated that the money returned from the facility should be deposited in a special fund for operation of the laboratory.

It was the feeling of the respondents that a school land laboratory was necessary for a complete educational environment in vocational agriculture.

BROWN, JAMES C. Identification of Opinion Leadership Among Vocational Agriculture Teachers in the State of Arizona. Report, Masters of Agricultural Education, 1971, University of Arizona, 87 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. -- The purpose of the study was to determine the magnitude of opinion leadership among teachers of vocational agriculture in Arizona in selected areas of instruction and problem categories.

Method. -- The sociometric technique was utilized to survey all teachers of vocational agriculture who were present in the state and teaching at the time of the investigation. Each teacher was asked to list from which teacher of vocational agriculture or community college instructor of agriculture in the state he would seek advice and information in each of the selected areas of instruction or problem categories. The teachers were also asked to list certain of their own personal and social characteristics. A teacher identified as a source of information by four or more of his peers in each area was defined as an opinion leader.

Findings. -- Nineteen areas of instruction and problem categories of major concern in teaching vocational agriculture were identified and at least one teacher was identified as an opinion leader in each area. There were twenty-two specific individuals among the Arizona vocational agriculture teachers who were identified as opinion leaders. Of the twenty-two individuals, eight were identified as an opinion leader in three or more areas, eight were identified as an opinion leader in two areas, and six were identified as opinion leaders in only one area. The number of opinion leaders identified in each area of instruction or problem category ranged from one to five. Twelve personal and social characteristics were identified that may be associated with opinion leadership. Ten characteristics had a positive relationship with opinion leadership. The mean scores for eight personal and social characteristics increased as the number of areas in which a teacher was identified as an opinion leader increased.

BURLESON, LOU R. Occupational Opportunities in Agriculture in the Western Part of Cochise County, Arizona. Research Report, M. Ag. Ed., 1970, University of Arizona. 60 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. -- To determine the agricultural opportunities and training needs of persons engaged in agricultural occupations in Western Cochise County, Arizona.

Method. -- A complete survey of all agricultural producers and businessmen was conducted. Personal interview of all persons with ownership or managership responsibilities was utilized to obtain information pertinent to the study. The survey was conducted in the Benson, Tombstone, St. David, and Buena High School Districts which composes the western part of Cochise County, Arizona.

Findings. -- There were 67 agricultural producers and businessmen interviewed in the survey. A total of 31 job titles were found to exist in the western part of Cochise County. All of the job titles were included in the seven occupational areas of (1) "livestock and crop production"; (2) "livestock production only"; (3) "agricultural processing"; (4) "agricultural services"; (5) "crop production"; (6) "horticulture"; and (7) "farm supply". Competencies in animal science, field crop production, agricultural business management and marketing, and agricultural mechanics were found to be needed by the majority of the 148 persons employed in agricultural occupations in the western part of Cochise County, Arizona. Very few persons needed competencies in horticulture, forestry, and merchandising. Data pertaining to the (1) preference of farm experience; (2) preference of a farm background; (3) educational levels necessary for employment; (4) ages of persons engaged in agricultural occupations; and (5) salaries of agricultural employees were included in the study to determine characteristics of persons employed in agricultural occupations in the western part of Cochise County.

DAY, WILFORD LAVON. Historical Development and Demographic Patterns of the Goshute Indians of Ibapah, Utah. Master's Report, Utah State University, 155 pages. U.S.U. Library, Logan, Utah 84321.

Purpose. -- The author worked for more than a year to improve the agricultural and agricultural mechanics programs of the Goshute Tribe of Indians. The purpose of this study was to present a historical account of these Indians, their treaties, and the events that led to their placement on the Goshute Reservation. The aim was to assist this tribe to attain educational and social benefits and to help other tribes that have similar problems.

Method. -- The author lived among the Goshute Indians, attended their meetings, taught adult classes, aided them to get employment and was therefore able to learn of their problems and needs. He did considerable research in the libraries at two major universities to obtain historical and other data to assist in the study.

Findings. -- There was a lack of information on this tribe that is located on the Utah-Nevada border. The tribal council members are anxious to improve the tribe's condition and will work to do it. The M.D.T.A. training program, taught in part by the author, created considerable interest in industry. More than 80% of the Indian population on the reservation was over 46 or under 18 years of age.

Businesses were predominantly willing to participate in helping train high school students by allowing students to visit their plants, talking to interested student groups, employing students on part-time basis or during vacation periods, and working with the school in developing training programs.

Trainee programs should be conducted during the entire year to accomodate the various schedules of businesses.

Major inhibiting factors of the trainee program are liability insurance and extra help not needed; additional complications arose from the age and abilities of the trainees.

Student interest was the strongest criteria for trainee selection with very little emphasis on high school class rank.

Trainee placement procedure was not a problem, but businesses desired several methods of trainee selection.

Businesses strongly preferred male trainees and a single sex due to the nature of the work, but there were numerous opportunities for females.

An advisory committee was desired by the majority of businesses.

Businesses were willing to pay at least minimum wages to trainees for all the time the trainee spent at the training station. Trainee wages were not considered a problem area.

Coordination between the business and the school was strongly desired by a majority of the businesses.

Written guidelines did not present a problem to the businesses, but were generally desirable.

Businesses generally preferred a written contract with the trainee concerning the training.

FAUST, JAMES MARTIN. The Development and Evaluation of a Student Reference Unit on Soils for Students of Vocational Agriculture in Arizona. Report, Masters of Agricultural Education, 1971 University of Arizona, 81 pages. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. -- The purpose of this study was to compare the effectiveness of a prepared student reference on soils with that of the two-year basic resource unit when used as a reference for students of vocational agriculture in Arizona.

Method. -- A student reference unit on soils was developed and contained information similar to that found in the teacher's resource unit on soils. In addition a 48 - question multiple choice test was used to collect the data. Eight classes, composed of 149 students, in six Arizona high schools participated in the study. The classes were randomly assigned to the type of reference unit that was used by the students. The teachers were asked to evaluate the student reference unit and the teachers resource unit using a specially prepared rating scale and evaluation questionnaire.

Findings. -- The student reference and the teachers resource unit were found to be equally effective in presenting information on soils as measured by pre- and post-test results. The difference between the pre- and post-test mean scores of the experimental and control group of .83 was not significant at the .05 level when analyzed by the F test. The students in the control group had a 36.6 percent increase in understanding of information on soils compared to a 30.8 percent increase for the experimental group. The teachers rated the student reference unit and the teachers resource unit equally in presenting soils information to students. A block of twelve to fifteen class periods was not sufficient time to adequately teach the unit on soils.

HATCH, KEITH W. A Proposed Teaching Unit Outline in Agricultural Equipment Hydraulics. Master's Report 1971, Utah State University, 122 pages. U.S.U. Library, Logan, Utah 84321.

Purpose. -- The purpose of this report was to develop an outline of teaching units that could be used by teachers of vocational agriculture and others to teach a technician type program in hydraulics used on agricultural equipment.

Method. -- The author obtained instructional materials from major equipment companies, and used texts and his experience obtained as an employee of a major equipment and tractor company for nine years to assemble 11 teaching unit outlines. Many units are illustrated.

Findings. -- Terminology, principles, types, disassembling, reassembling, cylinders, valves, fluids, testing and diagnosing malfunctions are some of the areas covered.

HULS, DONALD CHARLES. Development and Evaluation of Teaching Units Related to the Nebraska Vocational Agriculture Farm Account Book. Research Report, M. S. Ag. Ed., 1970, University of Arizona, 142 p. Ag. Ed. Dept., University of Arizona, Tucson.

Purpose. -- The purpose of the study was to develop and test teaching units, for instruction of vocational agriculture students in farm records, utilizing the Nebraska Vocational Agriculture Farm Account Book. Twelve teaching units were developed and taught; a forty-three question test was developed and utilized to indicate effectiveness.

Method. -- The Nebraska Vocational Agriculture Farm Account Book was utilized to develop specific unit objectives and test questions. A representative vocational agriculture class was taught and tested in nineteen fifty-minute, class periods.

Findings. -- The instructional units as developed, taught and tested were effective in increasing student understanding by 18.8 percent. Student understanding was more influenced by the instructional units as taught than by selected factors tested.

JENSEN, M. REX. Teaching Plans for Planning and Keeping Records on Agricultural Occupation Experience Programs. Master's Report, 1971, Utah State University, 73 pages. U.S.U. Library, Logan, Utah 84321.

Purpose. -- The purpose was to develop teaching outlines for the use of teachers of vocational agriculture. This should bring about a system of record keeping that will be accurate and useful.

Method. -- The author took a copy of the Supervised Occupational Experience in Agriculture Plans and Records Book and the Teacher's Guide for this book. He prepared teaching plans and sample pages for teaching the use of the record book.

Findings. -- The ten plans should prove helpful to teachers who want to create interest and accuracy in record keeping.

JOHNSON, CHARLES G. Leadership Training Activities Presently Being Carried Out for State Youth Group Officers by State Vocational Staff Personnel. Master's Report, M.Ed., 1971, Colorado State University, 124 p. Library, Colorado State University, Fort Collins, Colorado.

Purpose. -- To determine what leadership training was being offered for incoming state officers of the various vocational youth organizations.

Method. -- Data for this study were secured by means of a questionnaire administered to 237 persons responsible for leadership training of vocational youth group officers in the United States.

Findings. -- A majority of the participants had earned masters' degrees and had served as local vocational youth group advisors.

Fifty-two percent of the advisors indicated that the most desirable state staff structure was one designating a different state staff person functioning separately for each vocational youth group. The structure providing one state staff person serving as advisor to all vocational youth groups was rated as the least desirable by 70.7 percent of the advisors, indicating a rejection of this type of staff structure.

The advisors indicated that the following leadership abilities or traits should be possessed by a student state officer at election time: is knowledgeable of the purposes of the organization, is responsible, is a good citizen, is cooperative, is industrious, is friendly, is courteous, is neat, is confident in himself, is sympathetic, is able to conduct a meeting using parliamentary procedure, is aware of problems and issues of the organization, possesses pride in the organization, possesses a sense of humor, can express himself effectively, possesses humility, takes advice readily, can lead a group discussion for 30 minutes, and resists questionable adult influences.

The duties, activities or services that should be within the capabilities of a state vocational youth group officer after he has been through a training program are as follows: conduct group discussions, represent youth group to individuals, give direction to local youth groups, interpret goals and objectives of the state and national organizations, work cooperatively, speak before groups, speak extemporaneously, conduct leadership training activities, organize group planning, plan, organize and conduct state meetings, make unbiased decisions, and speak intelligently on state and national issues.

Fifty-five percent of the state advisors did not have a written program for providing leadership training to state vocational youth group officers.

KERR, CONNIE. Perceptions of Montana Extension Agents and Extension Staff Concerning Their Role in Adult Education. Professional Paper, M.S., 1971, Montana State University, 80 p. Department of Agricultural Education, Montana State University, Bozeman.

Purpose. -- The central purpose of this study was to examine the relationships of role perception and attitudes toward the adult education responsibilities of Cooperative Extension Staff and County Agents in Montana.

Methods. -- The population including 22 state staff and 40 county agents of all Cooperative Extension Staff and Agents in Montana. A questionnaire was prepared to determine the attitude of Cooperative Extension Staff and Agents toward their role as adult educators and their attitudes toward a university wide extension service.

Findings. -- The findings included: (1) the major responsibilities of the county agents were youth program coordination, community development, program implementation, informal teaching and administration, (2) the major responsibilities of the staff were information reporting, program planning, program implementation, informal teaching and consulting, (3) the staff disagreed with a separation of vocational training and adult education, (4) twenty-five percent of the agents think that needs and choices of offerings of adult education courses and programs must be determined by participants and not teachers and administrators, (5) twenty-seven percent of the staff felt some facility for coordinating all adult education in Montana was important, (6) sixty-four percent of the agents and thirty-one percent of staff ranked community leaders as the most important informational source for adult education, (7) forty-seven percent of the extension agents

and fifty-six percent of staff felt that there was a need for research to determine adult education needs and opportunities, (8) increased public awareness was the most frequently selected goal for adult education by both extension staff and agents, and (9) predicted direction for adult education were in communication, community development, leadership training and social problems.

KLUTH, WILLIAM FLOYD. An Evaluative Study of Pollution Control Activities Which Could be Promoted by Vocational Agriculture Instructors in Idaho. Thesis, Master of Science, June 1971, University of Idaho, 61 p., Library, University of Idaho, Moscow.

Purpose. -- (1) To compile a suggested list of pollution control teaching activities which could be included in the current course of study for Idaho vocational agriculture departments. (2) To determine the interest Idaho vocational agriculture instructors have toward pollution control education. (3) To determine the value, as rated by Idaho vocational agriculture instructors, of pollution control activities that they have used. (4) To determine the value, as rated by Idaho vocational agriculture instructors, of pollution control activities they have not used but may use in the future. (5) To determine if the instructors teach and implement pollution control in their classes and calculate how much of their course time is devoted to pollution control activities.

Methods. -- A questionnaire was prepared for obtaining the data. Fifty-seven of the seventy questionnaires sent to Idaho vocational agriculture instructors were returned. The data from the questionnaires was compiled and computed as a percentage of responses to each of the general questions.

The questionnaire also consisted of six main areas of environmental pollution with the specific control activities listed under each main area to be rated by the vocational agriculture instructor. The main value rating for each activity was computed. The rating was then used to determine which activities should be included in a suggested course of study for vocational agriculture instructors in Idaho.

The six main areas that dealt with environmental pollution control activities were as follows: (1) Soil management practices that lead to pollution. (2) Noise pollution. (3) Water pollution. (4) Air pollution. (5) River and stream pollution. (6) Aesthetic pollution.

Findings. -- There was evidence that a significant number of the responding Idaho vocational agriculture instructors have not been teaching or implementing pollution control activities in their classes. The reason for the lack of pollution control education may be because instructors believed such activities would be more easily articulated in a science curriculum.

The study also revealed that forty-five or eighty percent of the responding vocational agriculture instructors classified their interest as "moderate" or "strong" concerning pollution control education. Eleven or twenty percent of the respondents classified their interest as either "slight" or "none at all" in pollution control education.

The study disclosed eleven pollution control activities that should be emphasized by Idaho vocational agriculture instructors. The main pollution sources which these activities were listed under were river and stream pollution, air pollution, and soil management practices that lead to pollution.

MERRILL, TERRY H. Lesson Outlines in Oxy-Acetylene Welding and Cutting. Master's Report, 1971, Utah State University, 123 pages. U.S.U. Library, Logan, Utah 84321.

Purpose. -- The purpose was to prepare a series of lesson outlines that would save time for teachers of vocational agriculture.

Method. -- The teacher used leading texts and company books and manuals and made up 23 teaching plans. Behavioral objectives were suggested for students in order to successfully grade the performance.

Findings. -- Many new techniques and ideas were developed that may often be overlooked by many busy teachers of vocational agriculture. Most teachers will benefit by using these plans.

MUNGEN, JR. THEOPHILUS WILLIAM. A Study of the Views of Vocational Agriculture Teachers and School Counselors Concerning Effective Guidance and Counseling of Idaho Students Interested in Vocational Agriculture. Thesis, M.S., 1971, University of Idaho, 68 p., Library, University of Idaho, Moscow.

Purpose. -- (1) To determine what methods guidance counselors are using to inform interested students about the opportunities in vocational agriculture. (2) To investigate whether a need for more effective guidance techniques exists which can be employed by vocational agriculture teachers. (3) To determine the opinions of vocational agriculture teachers and school counselors concerning each other's programs within their respective schools. (4) To determine if inadequacy exists in the guidance provided to students by agriculture teachers. (5) To provide additional information on more effective guidance and counseling techniques which can be used by vocational agriculture teachers.

Methods. -- Statistical data were obtained by mail questionnaires from sixty-five vocational agriculture teachers and fifty school counselors employed in the same schools in Idaho. There were two questionnaires prepared. One questionnaire was for responses by agriculture teachers and one questionnaire was designed for responses by the guidance counselor. The following information was gathered: (a) agricultural occupation information availability to counselors, (b) follow-up studies of post agriculture graduates and the study availability to school counselors, (c) invitations to agricultural activities to guidance counselors by agriculture teacher, (d) curriculum for high school agriculture students to meet college entrance requirements, and (e) the attitudes of both the counselor and agriculture teacher about each other's programs in their schools.

Findings. -- There was significant evidence that vocational agriculture teachers have not been providing occupational information to their school counselors. This evidence indicated agriculture teachers may have given

this information to the counselor of five years ago, but the new counselor has not received this vital information which aids the function of his office.

This study showed that eighty-eight percent of the guidance counselors were not knowledgeable of the agriculture teachers' follow-up studies of post agriculture graduates.

There were some indications of failure to invite counselors to agricultural activities by the agriculture teachers. This evidence indicated that the agriculture teachers had forgotten the new counselor on the job.

The study also revealed that the guidance counselors and agriculture teachers were failing agriculture students in one area. Three-fourths of the school counselors were not abreast of high school curricula for college entrance requirements for agriculture students continuing vocational agriculture courses in high school. Many of the agriculture teachers were not aware that the counselors were not informed.

It was truly evident throughout the study that the agriculture teachers and guidance counselors were not communicating. The agriculture teachers were asking that the counselors communicate with them and the counselors were making a similar request.

NOLAND, WARREN G. and WAGLEY, LEON A. Pre- and Post-Test for High School Agriculture Students in New Mexico: A Progress Report. Staff study, 1971, New Mexico State University. 15 p. Department of Agricultural and Extension Education, New Mexico State University, Las Cruces.

Purpose. -- The major purpose of this project was to develop a pre- and post-test for high schools in New Mexico based on the common elements of the vocational agriculture curriculum.

Method. -- A task force of vocational agriculture teachers, high school administrators, and guidance counselors identified the common elements of the curriculum, formulated performance objectives for the four instructional areas of animal science, plant science, agricultural mechanics, and F.F.A. and leadership development. A test was developed for each of these four areas. Teachers in fifteen vocational agriculture departments administered the four tests to their first-year and third-year students during the fall of 1970.

Findings. -- Two hundred and seventy-one first-year students and 166 third-year students completed the series of four tests. Analysis of the test results revealed the following: (1) the mean test scores of third-year students was significantly greater than for first-year students; (2) there was a significant difference between mean test scores of students with previous agricultural experience and those with no previous experience on the F.F.A. and agricultural mechanics tests; (3) there was a significant correlation between teachers' ratings of student knowledge and test scores on the F.F.A. and leadership, animal science, and plant science tests; (4) reliability coefficients for the series of four tests varied from .72 for the animal science test to .92 for agricultural mechanics.

PARKER, DON M., JR. Guidelines for Initiating Summer internship Programs for Undergraduates in Departments of Agricultural Education. Report, Masters of Agricultural Education, 1971, University of Arizona, 116 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. -- The purpose of the study was to develop valid guidelines for use in initiating summer internship programs for undergraduates in departments of agricultural education.

Method. -- The study was based on three surveys, conducted as a means of developing the guidelines for use in initiating summer internship programs for undergraduates in agricultural education. The fourteen influential factors identified were as follows: objectives of the program; criteria for selection of students; criteria for selection of training stations; grade level for eligibility; compensation for the student; granting of academic credit; length of time for placement; responsibility for supervision of the student; placement agreements; training plans; legal considerations; student expectations; level of training; and contributions of student to the cooperator.

Based upon the fourteen influential factors and the pertinent data gathered in relation to each of the fourteen influential factors, thirty-seven (37) proposed guidelines were formulated. Rating the thirty-seven (37) proposed guidelines by the final survey population resulted in the validation of thirty-six guidelines for use in initiating summer internship programs for undergraduates in departments of agricultural education.

PRUETT, LEONARD T. Educational interests and desires for Adult Farmer Instruction in Agriculture in Colorado. Master's report, 1970. Colorado State University. 102 p. Department of Vocational Education, Colorado State University, Fort Collins.

Purpose. -- To determine educational interests and desires of adult farmers, necessary to develop long-time programs of instruction for adult farmers in Colorado.

Method. -- Data was collected by a questionnaire survey of 100 farmers selected at random from a composit list of farmers enrolled in adult farmer classes throughout Colorado.

Findings. -- Family size averaged 2.9 children per family. 93.7 percent were married and 65 percent were between ages 25 and 40. 28.6 percent had sons who had received vocational agriculture training in high school.

These farmers had an average of 15.4 years of farming experience, 12.1 years of education, while 15.9 percent of these farmers graduated from college.

Two-thirds were full-time farmers or ranchers, 60.3 percent were land owners. The two main types of farming were (1) cash crop and beef fattening, and (2) general diversified.

Areas of interest and desire for instructional programs were: beef fattening, technical agriculture associated with livestock and crop production, farm and ranch management, and farm mechanics.

Frequency of meetings preferred were 1 class per week for 10 weeks or 2 classes per week for 5 weeks, beginning in December or January.

Tuesday evening meetings were preferred, while Monday and Thursday evenings were second and third choices respectively.

Reasons for missing adult farmer classes were: worked on farm too late, illness, social, civic, and church activities, and extreme weather conditions.

Seventy-five percent of the farmers had farm shops and did an average of 70 percent of their own repair, maintenance, and construction work.

Hobbies included bowling, hunting, fishing, boating, golf, rodeo, and skiing.

REYNOLDS, ELDON R. An Evaluation of the Pre-Service Program in Agricultural Education at Colorado State University. Master's report, 1970. Colorado State University, 156 p., Department of Vocational Education, Colorado State University, Fort Collins.

Purpose. -- To assess the effectiveness of the pre-service program in agricultural education at Colorado State University.

Method. -- Data were collected by the use of two mailed questionnaires. One questionnaire provided direct curriculum evaluations by 77 graduates and the other questionnaire provided evaluations of the graduates' performance by 27 administrators.

Findings. -- Sixty-three percent of the respondents who had graduated during the previous five years were teaching vocational agriculture.

Graduates rated 66.0 percent of the undergraduate courses as being "of considerable help," 28.3 percent "of some help," and 5.6 percent "of no particular help." Courses rated "of no particular help" were American Government, The Agricultural Profession, and Educational Growth and Behavior.

The courses most frequently listed as most valuable were advanced technical agriculture courses.

Most of the courses considered least valuable were introductory or exploratory courses.

There was little difference between graduates teaching vocational agriculture and graduates not teaching vocational agriculture in the occupational helpfulness ratings of the courses.

Student teaching experiences were generally rated as being adequate by all groups. Student teaching was by far the most frequently listed "most valuable" course. However, those student teaching experiences that dealt with the administration of the vocational agriculture department, maintaining relationship with community groups, working with advisory councils and conducting young farmer classes were rated as being somewhat inadequate.

Graduates expressed a feeling that most of the guidance, counseling, and job placement activities performed by staff members in the agricultural education section were "most adequate."

Vocational agriculture majors did not participate to any extent in any student activities except Alpha Tau Alpha.

Self-ratings of competency indicated graduates felt "somewhat adequate" in their competencies at the time of their graduation in 13 of the areas listed and "inadequate" in five of the areas listed.

Administrators rated vocational agriculture teachers very favorably concerning personal traits, preparation and professionalism. The highest rated personal trait was standards of morality, and the lowest rated personal trait was originality. Administrators indicated that the vocational agriculture teachers were more competent in their knowledge of subject matter than they were in the skills of teaching the subject matter.

SMITH, RICHARD ALAN. Survey of Graduates and Undergraduates of North Douglas School District to Determine Needed Improvements in Career Education. Thesis, M.S. 1971, Oregon State University. 57 p. Library, Oregon State University, Corvallis, Oregon.

Purpose. -- The purpose of this study was to obtain and analyze graduate and in-school student data that could assist planning toward improvement of the Career Education Program in the North Douglas School District. Specific factors investigated were: (1) Types and classification of occupations entered by graduates and degree of job satisfaction; (2) post high school education; (3) monthly incomes; (4) location and duration of employment; (5) attitudes and opinions of graduates as to curriculum; (6) present plans to finish high school; (7) post high school plans of in-school students; (8) post high school education plans of in-school students; (9) attitude of in-school students toward preparation for college and occupational entry; and (10) occupational area interest of in-school students.

Method. -- A questionnaire was mailed to 317 graduates of North Douglas High School, covering a nine-year period from 1962 through 1970. Additionally, 348 in-school students in grades 6-12 of North Douglas School District were administered an interest questionnaire. Data obtained from these questionnaires were analyzed to assess the need for an improved career education program.

Findings. -- The most significant findings were: (1) Fifty-six percent of the graduates reside outside of Douglas County. (2) Respondents ranked English and mathematics as the most important courses in high school. (3) Forty-five percent of the graduates had obtained some training in a college or university. (4) Nine percent of the in-school students had decided not to complete high school or were undecided. (5) Forty-five percent of the in-school students planned to continue their education following graduation from high school. (6) Sixty-two percent of the in-school students indicated they desired training that would prepare them for both college entrance and occupational entry. (7) Seventy-four percent of the in-school students replied that they desired training that would prepare them for a specific occupation.

SOPER, JACK A. Teaching Plans in Range Management for Utah High School Vocational Agricultural Programs. Master's Report, 1971, Utah State University, 105 pages. U.S.U. Library, Logan, Utah 84321.

Purpose. -- To prepare guides for teachers of vocational agriculture who planned to teach range management. To save teachers time by suggesting areas and citing references.

Methods. -- Books, bulletins and other reference materials were selected and studied. An authority in range management checked the material and assisted in developing the plans.

Findings. -- Many teachers were in need of this material and have requested copies. There were 13 lesson plans in the completed report.

UNDERWOOD, AMOS HARVEY. A Study of Ranch Management Practices in Navajo County, Arizona. Research Report, M. Ag. Ed., 1970, University of Arizona. 60 p. Department of Agricultural Education, University of Arizona, Tucson.

Purpose. -- The purpose of this study was to assess the Ranch Management Practices utilized by ranchers in Navajo County, Arizona, with implications for planning educational programs.

Method. -- A mailed questionnaire was used followed by personal interview to determine what ranch management practices were followed by 40 selected ranchers. These practices were compared with a developed list of 22 measurable recommended practices. From the findings an educational program was recommended.

Findings. -- Of 22 measurable approved ranch management practices compared with practices followed by ranchers, 7 were above and 15 were below the 50 percent level. The 7 of 22 practices above the 50 percent level included: (1) Use of protein feed. (2) Disease control. (3) Use of salt. (4) Use of phosphate. (5) Special treatment of heifers. (6) Use of vitamin A. (7) Breeding yearling heifers. The 15 below the 50 percent level were: (1) Grub control. (2) Seasonal breeding. (3) Use of salt. (4) Treatment for lice. (5) Treatment for flies. (6) Water distribution. (7) Pregnancy testing. (8) Selling non-breeders. (9) Flushing cows.

(10) Record tested bulls. (11) Calf crop. (12) Selecting replacement heifers. (13) Weaning weights. (14) Use of stilbesterol. (15) Selling at auction. It was found that these could be used as a basis for recommending an educational program.

RESEARCH STUDIES IN PROGRESS

AMBERSON, MAX L. Rural Youth and Adult Education in Montana: An Assessment of Alternative Educational and Employment Opportunities for Rural Montanans, Staff Study, Agricultural Education Department, Montana State University.

ARMSTRONG, JAMES F. The Feasibility of a Cooperative High School Vocational Education Program in the Manhattan Community, Professional Paper, M.S., Department of Agricultural Education, Montana State University.

BENSON, JAMES A. An Evaluation of Agriculture Education Advisory Councils in the State of Idaho, by the Membership of These Councils. Thesis, M.S., Department of Agricultural Education, University of Idaho.

BISHOP, DOUGLAS D. & AMBERSON, MAX L. Vocational Education Information Program, Staff Study, Agricultural Education Department, Montana State University.

BROSTEN, EINAR. The Student Recruitment Program at the Helena Vocational Technical Center and its Effect on the Students' Selection of the Helena Center. Professional Paper, M.S., Montana State University.

BURNS, WILLIE J. Employment Needs for Forestry Technicians in Arkansas. Masters Report, Department of Vocational Education, Colorado State University.

CAVEY, MIKE. Characteristics Evident in Successful Vocational Education Programs for Disadvantaged Students, Professional Paper, M.S., Montana State University.

CHURCH, LARRY. A Study of the Potential of the Junior and Senior Students Enrolled in Vocational Agriculture in the Boise Valley District to Become Established in Farming after Graduation from High School. Thesis, M.S., Department of Agricultural Education, University of Idaho.

COLE, RICHARD L. Job Opportunities in the Ornamental Horticulture Industry for Vo-Ag students in East Multnomah and North Clackamas Counties. Ed.M., Agricultural Education Department, Oregon State University.

COUMBS, G. LEE. A Comparison of Career Choices of Graduates of Two Selected High Schools; one with Extensive Vocational Offerings and the other with Limited Offerings. M.S. VTE, Department of Education, Washington State University.

EGAN, CHARLES E. An Analysis of the Multi-Station Evaluation of Breeding Beef Animals, Professional Paper, M.S., Department of Agricultural Education, Montana State University.

EKEGREN, WOODROW A. Montana Agricultural Occupational Opportunities Survey, Professional Paper, M.S., Montana State University.

GORDON, JERRY FRANK. An Appraisal of Vocational Education by the Administrators for the Rural Disadvantaged in Selected Schools with High Percentages of Disadvantaged Students. Thesis, M.S. VTE, Department of Education, Washington State University.

HURLEY, BEN F. Utilizing Vocational Agriculture Students in the Secondary Schools As Instructional Aids by the Montana Vocational Agriculture Instructors, Professional Paper, M.S., Department of Agricultural Education. Montana State University.

JENKINS, JOHN W. Knowledge and Understand About Drugs Among Community Agencies in Gallatin County. Professional Paper, M.S., Montana State University.

JIBAJA, HENRY. An Informational Retrevial and Evaluation System for Peace Corps Colombia. Thesis, M.S., Montana State University.

JOHNSON, ROBERT LYLE. A Study to Determine the Employment Patterns of A Sample of the Graduates of Yakima Valley College with a Major in Agriculture. M.S. Ag. Ed., Department of Education, Washington State University.

JURANEK, RODNEY E. Follow-up of Agricultural Education Graduates, from 1960-70. Thesis, Ed.M., Agricultural Education Department, Oregon State University.

MC CALL, DALE E. Need for Production Agriculture Education Programs at the Secondary, Post-Secondary and Adult Levels in Colorado. Masters Report, Department of Vocational Education, Colorado State University.

MUNDT, JOHN. An Evaluation of Cooperative Work Experience Programs in the Meridian Area by Selected Training Station Cooperators. Thesis, M.S., Department of Agricultural Education, University of Idaho.

NOLAND, WARREN G. & WAGLEY, LEON A. Occupational Opportunities for Off-Farm Agricultural Employment in Selected Areas of New Mexico. Staff study, Department of Agricultural and Extension Education, New Mexico State University.

NOLAND, WARREN G. & WAGLEY, LEON A. Migration Patterns of Vocational Agriculture Graduates in New Mexico. Staff study, Department of Agricultural and Extension Education, New Mexico State University.

NOLAND, WARREN G. & WAGLEY, LEON A. Relationship of Student Characteristics and Policies in New Mexico to Participation in FFA. Staff study, Department of Agricultural and Extension Education, New Mexico State University.

NOLAND, WARREN G. & WAGLEY, LEON A. The Development of a Teacher Resource Unit for Environmental Management. Staff study, Department of Agricultural and Extension Education, New Mexico State University.

OADES, JOHN D. A Survey of Agriculture Mechanics Competencies in the Culver, Oregon Area. Ed.M., Agricultural Education Department, Oregon State University.

OLSON, DARRELL R. Survey on Off-Farm Ag Occupations for Clark County, Washington and Pre-employment Training Needed for Them. Thesis, M.S., Department of Agricultural Education, University of Idaho.

OMDAL, STANLEY. An Examination of State and Federal Financial Support of Vocational Education in Thirty Selected High Schools in the State of Washington. M.S. Ag. Ed., Department of Education, Washington State University.

SCHLICHTING, HARLEY O. Professional and Technical Needs of Post-Secondary Teachers of Agriculture in the Technical Areas of Grain and Livestock, Professional Paper, M.S., Department of Agricultural Education, Montana State University.

SHIVELY, JERRY W. A Comparison of Effectiveness of Individualized Learning Packages to Traditional Methods of Teaching a Horticulture Unit. Ed.M., Agricultural Education Department, Oregon State University.

STUCKI, SPENCER E. A Study of the Need for an Adult Farmer Program in Farm Management in Bear Lake County, Idaho. Thesis, M.S., Department of Agricultural Education, University of Idaho.

YENNE, ALAN P. An Experimental Study of Occupational Education Curriculum for Ninth Grade Agriculture Students. Ed.M., Agricultural Education Department, Oregon State University.

STAFF STUDIES: UNIVERSITY OF ARIZONA.

Development and Evaluation of Instructional units for teaching principles of Animal Nutrition.

Occupational opportunities and training needs for Agricultural Employment in the State of Arizona.

Development of Standardized Unit tests for Core Curriculum Resource Units.

Determination of Agricultural Mechanization Competencies Needed by Agricultural Educators in the Western United States.

PREPARATION OF A THESIS OR DISSERTATION SUMMARY

(Prepared by the ERIC Clearinghouse for Vocational and Technical Education for the Research Committee of the Agricultural Education Division of the American Vocational Association)

Guidelines

1) A summary should inform the reader of the intellectual content of a study, not merely describe the content.

2) A summary should be written in simple, clear, concise, and complete sentences in the third person, past tense.

3) A summary should provide a logical and unified presentation of the purposes, methods, and findings.

Content of Summary

The essential features of a summary, which should be included when applicable, are listed below.

Purposes

Primary purpose
Specific objectives
Scope and limitations

Methods

Population (e.g. geographical, social, political, economic)
Sample
- Size
- Selection (e.g. random, purposive, stratified, incidental)
- Response rate

Data collection
- Instrument type, formulation, and validation
- Sources
- Techniques

Data Analysis
- General design
- Statistical treatment

Findings and Conclusions

(Because the length of the summary is limited to 300 words, findings and conclusions should be selected for inclusion upon the basis of their relative importance).

Availability

(Where the document is available for examination, whether it may be purchased from University Microfilms, and whether it is available on interlibrary loan).